Listing of the Claims

This listing of the claims replaces all prior versions and listings of claims in the application.

1. (Currently Amended) A compound of formula I

$$\operatorname{Ar--(CH_{\overline{D}_{a}}\overset{R}{\underset{N}{\bigvee}}\overset{R^{a}}{\underset{R^{b}}{\bigvee}}\overset{R^{e}}{\underset{R^{d}}{\bigvee}}\overset{R^{e}}{\underset{R^{f}}{\bigcup}}\overset{R^{g}}{\underset{R^{h}}{\bigcup}}\overset{R^{g}}{\underset{C}{\bigcup}}\overset{R^{g}}{\underset{N}{\bigvee}}\overset{R^{7}}{\underset{C}{\bigvee}}\overset{R^{7}}{\underset{C}{\bigvee}}\overset{R^{7}}{\underset{C}{\bigvee}}\overset{R^{7}}{\underset{C}{\bigvee}}\overset{R^{g}}{\underset{C}}\overset{R^{g}}{\underset{C}{\bigvee}}\overset{R^{g}}{\underset{C}{\bigvee}}\overset{R^{g}}{\underset{C}}\overset{R^{g}}{\underset{C}}\overset{R^{g}}{\underset{C}}\overset{R^{g}}{\underset{C}}\overset{R^{g}}{\underset{C}}\overset{R^{g}}{\underset{C}}\overset{R}{\underset{C}}\overset{R^{g}}{\underset{C}}\overset{R}{\underset{C}}{\underset{C}}\overset{R}{\underset{C}}$$

I

wherein

-Ar is selected from

where

 \mathbb{R}^1 , \mathbb{R}^2 , \mathbb{R}^3 , and \mathbb{R}^4 are independently selected from hydrogen, halogen, alkyl, alkoxy, haloalkyl, and haloalkoxy;

and,

- s is an integer selected from 0 or 1;
- -a and r are integers independently selected from 0 or 1;
- -R is selected from hydroxy, haloalkyl, alkoxyalkyl, alkoxyalkyl, cycloalkylalkyl, cyanoalkyl, formyl, alkylcarbonyl, alkoxycarbonyl, alkylsulfonyl, dialkylphosphonato, oxolan-3-ylmethyl, 2H-3,4,5,6-tetrahydropyran-2-ylmethyl, cyclohex-1-en-3-yl, thien-3-ylmethyl, furan-2-ylmethyl, furan-3-ylmethyl, benzo[b]furan-2-ylmethyl, 2-R⁸-1,3-thiazol-4-ylmethyl, 5-R⁸-1,2,4-oxadiazol-3-ylmethyl,

$$R^{10} \xrightarrow{R^9} (CH_2)_m^{-1} \xrightarrow{R^{10}} (CH_2)_m^{-1}$$

where

 R^8 is selected from halogen, alkyl, aryl, and heteroaryl, wherein aryl and heteroaryl are optionally substituted with at least one of halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy; m is an integer selected from $40 \pi 1$ or 2;

and.

R⁹, R¹⁰, R¹¹, R¹², and R¹³ are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, alkoxyiminoalkyl, cyano, nitro, 2-alkyl-2H-tetrazol-5-yl, aryl, and aryloxy; R¹⁴, R¹⁵ and R¹⁶ are independently selected from hydrogen, halogen, alkyl and aryl; R¹⁷ is selected from hydrogen, alkyl.

$$\mathbb{R}^{19}$$
 \mathbb{R}^{20}
 \mathbb{R}^{22}
 \mathbb{R}^{21}
, and

where

 R^{18} , R^{19} , R^{20} , R^{21} , and R^{22} are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

-Ra, Rb, Rc and Rd are independently selected from hydrogen and alkyl;

-b and c are integers independently selected from 0 or 1;

and

when b and c are 1.

-Re, Rf, Rg and Rh are independently selected from hydrogen and alkyl;

-R5 is selected from hydrogen, alkyl, and

$$R^{24}$$
 $(CH_2)_{n}^{-1}$
 R^{25}
 R^{26}
 R^{27}

where

n is an integer selected from 1 or 2; and,

R²², R²⁴, R²⁵, R²⁶, and R²⁷ are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

-d and e are integers independently selected from 0 and 1;

and.

when d and e are 1;

-U and V are -CH2-;

-R⁶ is selected from hydrogen, alkyl, cycloalkyl, cycloalkylalkyl, alkoxy, alkoxyalkyl, alkoxyalkyl, alkoxyalkyl, alkoxyalkyl, alkenyl, haloalkenyl, and

$$R^{29}$$
 $(CH_2)_{p}^{-}$
 R^{30}
 R^{31}

where

p is an integer selected from 1 and 2;

and,

R²⁸, R²⁹, R³⁰, R³¹ and R³² are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

-R⁷ is selected from -C≡N and -NO₂;

-W is selected from -CR33- and -N-;

-X is elected from -CR34R35-, -O-, -S-, and -NR36;

where

 $R^{33}, R^{34}, R^{35} \ \text{and} \ R^{36} \ \text{are independently selected from hydrogen and alkyl;}$ provided that

<u>N</u> when i) Ar is oxolan-3-yl (M); ii) a, b and c are 1, and R^a through R^a , inclusively, are hydrogen; iii) d, e and r are 0; iv) R is $-(CH_2)_mCR^{14}=CR^{15}R^{16}$ or $-(CH_2)_mC=CR^{17}$; v) R^5 is hydrogen or alkyl; vi) R^6 is hydrogen, alkyl, alkenyl or haloalkenyl and vii) W is $-CR^{33}$ - where R^{33} is hydrogen; viii) then X is other than -S-;

II) when d and e are 0,

-R 5 and X may be taken together with-CH₂(CH₂) $_{\bf q}$ - or -CH₂YCH₂- to form a ring, where

q is an integer selected from 1 or 2;

Y is selected from O, S and NR37, where R37 is hydrogen or alkyl;

-X is elected from -CH-, -O-, -S-, and -N-;

where and

III) when X is -CH- or -N-,

 R^6 is selected from hydrogen, alkyl and that set forth above for R; when b and c are 0.

-R and R⁵ may be taken together with -CH₂CH₂- to form a piperazine ring;

an agriculturally acceptable salts salt thereof.

2. (Original) A compound of claim 1, wherein a is 1; b, c, d and e are each 0; R^a , R^b , R^c and R^d are each hydrogen; R^5 is selected from hydrogen and alkyl; W is selected from -CR³³ and -N-, where R^{33} is hydrogen; X is selected from -O-, -S-, and -NR³⁶-; and

 R^5 and X may be taken together with- $CH_2(CH_2)_{q^-}$ or $-CH_2YCH_{2^-}$ to form a ring, where

Y is selected from -O- and -NR 37 -, where R 37 is hydrogen or alkyl; X is -N- and R 6 is selected from hydrogen and alkyl.

3. (Original) A compound of claim 2, wherein Ar is selected from

where

s is 0; R1, R2 and R4 are each hydrogen and R3 is halogen.

(Currently Amended)

A compound of formula I

I

wherein

-Ar is selected from

7

where

R¹, R², R³, and R⁴ are independently selected from hydrogen, halogen, alkyl, alkoxy, haloalkyl, and haloalkoxy;

and,

- s is an integer selected from 0 or 1;
- -a and r are integers independently selected from 0 or 1;
- -R is selected from hydroxy, haloalkyl, alkoxyalkyl, alkoxyalkyl, cycloalkylalkyl, cyanoalkyl, formyl, alkylcarbonyl, alkoxyarbonyl, alkylsulfonyl, dialkylphosphonato, oxolan-3-ylmethyl, 2H-3,4,5,6-tetrahydropyran-2-ylmethyl, cyclohex-1-en-3-yl, thien-3-ylmethyl, furan-2-ylmethyl, furan-3-ylmethyl, benzo[b]furan-2-ylmethyl, 2-R⁸-1,3-thiazol-4-ylmethyl, 5-R⁸-1,2,4-oxadiazol-3-ylmethyl,

where

 R^8 is selected from halogen, alkyl, aryl, and heteroaryl, wherein aryl and heteroaryl are optionally substituted with at least one of halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy; m is an integer selected from 1 + 1 = 0?

and,

R⁹, R¹⁰, R¹¹, R¹², and R¹³ are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, alkoxyiminoalkyl, cyano, nitro, 2-alkyl-2H-tetrazol-5-yl, aryl, and aryloxy; R¹⁴, R¹⁵ and R¹⁶ are independently selected from hydrogen, halogen, alkyl and aryl; R¹⁷ is selected from hydrogen, alkyl,

where

 R^{18} , R^{19} , R^{20} , R^{21} , and R^{22} are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

-Ra, Rb, Rc and Rd are independently selected from hydrogen and alkyl;

-b and c are integers independently selected from 0 or 1;

and

when b and c are 1.

-Re, Rf, Rg and Rh are independently selected from hydrogen and alkyl;

-R5 is selected from hydrogen, alkyl, and

$$R^{24}$$
 R^{25}
 R^{25}
 R^{26}
 R^{27}

where

n is an integer selected from 1 or 2; and,

R²³, R²⁴, R²⁵, R²⁶, and R²⁷ are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy:

-d and e are integers independently selected from 0 and 1;

and.

when d and e are 1:

-U and V are -CH2-;

-R⁶ is selected from hydrogen, alkyl, cycloalkyl, cycloalkylalkyl, alkoxy, alkoxyalkyl, alkoxyalkyl, alkoxyalkyl, alkenyl, haloalkenyl, and

$$R^{29}$$
 $(CH_2)_{p^-}$
 R^{30}
 R^{31}

where

p is an integer selected from 1 and 2;

and,

R²⁸, R²⁹, R³⁰, R³¹ and R³² are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

-R⁷ is selected from -C≡N and -NO₂;

-W is selected from -CR33- and -N-;

-X is elected from -CR34R35-, -O-, -S-, and -NR36-;

where

 $R^{33},\,R^{34},\,R^{35}$ and R^{36} are independently selected from hydrogen and alkyl;

provided that when

i) Ar is oxolan-3-yl (M); ii) a, b and c are 1, and R^a through R^5 , inclusively, are hydrogen; iii) d, e and r are 0; iv) R is $-(CH_2)_mCR^{14} - CR^{15}R^{16}$ or $-(CH_2)_mC = CR^{17}$; v) R^5 is hydrogen or alkyl; vi) R^6 is hydrogen, alkyl, alkenyl or haloalkenyl and vii) W is $-CR^{33}$ - where R^{33} is hydrogen; viii) then X is other than -S-;

and or

an agriculturally acceptable salts salt thereof.

- 5. (Original) A compound of claim 4, wherein a is 1; b, c, d and e are each 0; R^a, R^b, R^c and R^d are each hydrogen; R⁵ is selected from hydrogen and alkyl; W is selected from -CR³³- and -N-, where R³³ is hydrogen and X is selected from -O-, -S-, and -NR³⁶-.
- 6. (Original) A compound of claim 5, wherein Ar is selected from

$$\mathbb{R}^2$$
 \mathbb{R}^4
 \mathbb{R}^4
 \mathbb{R}^3
 \mathbb{R}^3
 \mathbb{R}^4
 \mathbb{R}^3
 \mathbb{R}^3

where

s is 0; R1, R2 and R4 are each hydrogen and R3 is halogen.

7. (Currently Amended) A compound of formula I

$$Ar - (CH_{2})_{a} \bigvee_{(O)}^{R} - \begin{matrix} R^{a} & R^{e} & R^{e} & R^{e} \\ R^{b} & R^{d} & R^{f} & R^{g} & R^{g} \end{matrix} - \begin{matrix} R^{g} & R^{g} \\ R^{b} & R^{d} & R^{g} \end{matrix} - \begin{matrix} R^{g} & R^{g} \\ R^{g} & R^{g} & R^{g} \end{matrix}$$

T

wherein

-Ar is selected from

where

R¹, R², R³, and R⁴ are independently selected from hydrogen, halogen, alkyl, alkoxy, haloalkyl, and haloalkoxy;

and.

- s is an integer selected from 0 or 1;
- -a and r are integers independently selected from 0 or 1;
- -R is selected from hydrogen, hydroxy, alkyl, haloalkyl, alkoxyalkyl, alkoxyalkyl, cycloalkylalkyl, cyanoalkyl, formyl, alkylcarbonyl, alkoxycarbonyl, alkylsulfonyl, dialkylphosphonato, oxolan-3-ylmethyl, 2H-3,4,5,6-tetrahydropyran-2-ylmethyl, cyclohex-1-en-

3-yl, thien-3-ylmethyl, furan-2-ylmethyl, furan-3-ylmethyl, benzo[b]furan-2-ylmethyl, $2-R^8-1,3-t$ hiazol-4-ylmethyl, $5-R^8-1,2,4-o$ xadiazol-3-ylmethyl,

$$R^{10} \xrightarrow{R^9} (CH_2)_m^{-1} \xrightarrow{R^{10}} (CH_2)_m^{-1}$$

where

R⁸ is selected from halogen, alkyl, aryl, and heteroaryl, wherein aryl and heteroaryl are optionally substituted with at least one of halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy; m is an integer selected from 1-of 1 or 2:

and,

R⁹, R¹⁰, R¹¹, R¹², and R¹³ are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, haloalkoxy, alkoxyiminoalkyl, cyano, nitro, 2-alkyl-2H-tetrazol-5-yl, aryl, and aryloxy; R¹⁴, R¹⁵ and R¹⁶ are independently selected from hydrogen, halogen, alkyl and aryl; R¹⁷ is selected from hydrogen, alkyl,

$$R^{19}$$
 R^{20}
 R^{20}
 R^{20}
 R^{20}
 R^{20}
 R^{20}
 R^{20}

where

R¹⁸, R¹⁹, R²⁰, R²¹, and R²² are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

-Ra, Rb, Rc and Rd are independently selected from hydrogen and alkyl;

-b and c are integers independently selected from 0 or 1;

and

when b and c are 1,

-Re, Rf, Rg and Rh are independently selected from hydrogen and alkyl;

-d and e are 0;

-R 5 and X are taken together with—CH2(CH2) $_{q^{\ast}}$ or –CH2YCH2- to form a ring, where

q is an integer selected from 1 or 2;

Y is selected from -O-, -S- and -NR³⁷-, where R³⁷ is hydrogen or alkyl;

-X is elected from -CH-, -O-, -S-, and -N-;

where

when X is -CH- or -N-,

-R⁶ is selected from hydrogen, alkyl, cycloalkyl, cycloalkylalkyl, alkoxy, alkoxyalkyl, alkoxyalkyl, alkoxyalkyl, alkoxyalkyl, alkonyl, haloalkenyl, and

$$R^{20}$$
 $(CH_2)_p^{-1}$
 R^{30}
 R^{32}

where

p is an integer selected from 1 and 2;

and,

R²⁸, R²⁹, R³⁰, R³¹ and R³² are independently selected from hydrogen, halogen, alkyl, haloalkyl, alkoxy, and haloalkoxy;

 $-R^7$ is selected from $-C \equiv N$ and $-NO_2$;

-W is selected from –CR $^{\rm 33}$ - and -N-, where R $^{\rm 33}$ is selected from hydrogen and alkyl;

and <u>or</u>

an agriculturally acceptable salts salt thereof.

- 8. (Original) A compound of claim 7, wherein a is 1; b, c, d and e are each 0; R^a, R^b, R^c and R^d are each hydrogen; W is selected from -CR³³- and -N-, where R³³ is hydrogen; Y is selected from -O- and NR³⁷; X is -N- and R⁶ is selected from hydrogen and alkyl.
- 9. (Original) A compound of claim 5, wherein Ar is selected from

where

s is 0; R1, R2 and R4 are each hydrogen and R3 is halogen.

- (Original) A composition comprising an insecticidally effective amount of a compound of claim 1 and at least one agriculturally acceptable extender or adjuvant.
- 11. (Original) The insecticidal composition of claim 10, further comprising one or more second compounds selected from the group consisting of pesticides, plant growth regulators, fertilizers and soil conditioners.
- 12. (Original) A method of controlling insects, comprising applying an insecticidally effective amount of a composition of claim 10 to a locus where insects are present or are expected to be present.
- 13. (Original) A method of controlling insects, comprising applying an insecticidally effective amount of a composition of claim 11 to a locus where insects are present or are expected to be present.